American Dynamics Intellex DVR & Intransa Smart CCTV Upgrades

White Paper

Contents

Introduction 3
Intellex DVR Upgrade Considerations 6
Network Considerations 6
Intellex Upgrade Options 7
Intellex Upgrade Procedure Summary 8
Step 1: Install/Configure the NIC on the Intellex DVR 10
Step 2: Install and Configure the Microsoft iSCSI initiator 12
Step 3: Configure the Intransa StarterBlock 15
Configure Intransa StarterBlock via the VSA role 17
Step 4: Make the CCTV DVR Upgrade Available to the AD Intellex DVR 20
Step 5: Format to NTFS 22
Step 6: Recording Video to the Smart CCTV DVR Upgrade 24
Step 7: Protect your System 27
Summary and Conclusions 29

Introduction

Tyco International's American Dynamics® CCTV and video technologies have earned a reputation for innovation and reliability around the globe. With pioneering breakthroughs in security technology, the American Dynamics (AD) brand has always been at the forefront of the industry with the most popular and easy to use digital video management system in the industry: Intellex®. The American Dynamics portfolio also includes a comprehensive selection of domes, cameras, matrix switchers, keyboards, multiplexers, monitors, and video accessories—everything required for a complete, state of the art video surveillance system.

http://www.americandynamics.net

Intransa is the leading innovator of Video Data Management and Retention (VDMR) solutions for physical security. The company's *Smart All-IP Surveillance Solutions* for new digital surveillance implementations and *Smart CCTV DVR Upgrades* for existing analog surveillance systems are built on Intransa's video surveillance-optimized (VSOP) architecture.

VDMR systems include both video retention (storage) and video management and administration capabilities, specifically designed to deliver improved video surveillance to security practitioners and departments.

Over 100 applications and products that have been submitted by physical security, imaging, and technology vendors are certified by the Intransa StorAlliance Technology Labs for risk free integration.

Such products carry the *Intransa Security-Grade Video Retention Certified* designation and logo.

This report is the result of certification testing by the StorAlliance Technology Lab for AD Intellex DVRs in integration with Intransa Smart CCTV DVR Upgrades.

As a result of this testing, the AD Intellex is *Security-Grade Video Retention Certified.*

At time of writing, multiple customers had already successfully deployed Intransa CCTV DVR upgrades with Intellex, independent of the certification process.

Do More, With Less

In the current global economy, while budget money for new capital expenditures may be in short supply for many organizations, security needs typically are on the rise. The result is that security departments are often under pressure to do more with less.

An Intransa Smart CCTV DVR Upgrade is often the answer to both meet these seemingly opposed demands. CCTV DVR upgrades deliver better quality video for retention and playback, supporting the maximum output the analog cameras and DVRs are capable of. Intransa CCTV upgrades also reduce the overall amount of storage required for video retention, while allowing more actual video to be recorded and held.

Intransa Smart CCTV Upgrades extend the life of video surveillance systems, supporting many brands of DVRs like those of market leader AD. This allows security departments to leverage the financial investment they have already made in their security system while gaining all the benefits of newer IP solutions.

Existing DVRs, cameras and cabling continue to be used, unchanged, and security operators to not require retraining. IP capabilities, including NVRs, VMS, PSIM, IP cameras, access control, life safety and other applications can also take advantage of the resulting hybrid analog/digital installation.

As more retention capacity is required in the future, or as more DVRs and cameras are added, modular capacity upgrades can be added without halting recording or re-cabling.

Best of all, Intransa Smart CCTV DVR Upgrades can dramatically reduce the cost of the retention component of attached video surveillance systems, reducing pressure on budgets while delivering significant value.

Getting Started

Intransa Smart CCTV DVR Upgrades as a Security-Grade Video Retention platform are easily added to many DVRs, including those from AD.

This technical whitepaper is intended to be used as a reference for configuring and installing the AD Intellex with an Intransa Smart CCTV DVR Upgrade.

It is primarily designed for use by security system administrators, security operators, or security practitioners who wish to extend the life of their existing surveillance system through the additional of a Smart CCTV DVR Upgrade.

Required Equipment

The entire upgrade process documented in this report is performed directly from the AD Intellex DVR/NVR system itself.

No workstation, laptop, or desktop computers, and no data switches or other devices are required to perform the entire process from start to finish.

This DVR platform-only upgrade process mirrors real world conditions found in many wiring closets and command centers in use by security departments worldwide. It also reflects the advanced video surveillance-optimized capabilities of Intransa Smart CCTV DVR Upgrades for use as a Security-Grade Video Retention platform.

Security practitioners who are more comfortable performing the installation of the CCTV DVR upgrade with the use of an external computer such as a laptop PC are of course also able to do so.

The Intransa Video Data Management and Retention (VDMR) platform used in this report with the AD Intellex is an Intransa StarterBlock. StarterBlock at time of writing scales from 2 to 16 terabytes (TB) of hot-swap, RAID protected video retention and is capable of supporting 1 to several typical DVRs with 8 to 16 channels for analog cameras each.

Should more initial capability be required, an Intransa EdgeBlock (supporting more than a dozen DVRs) or BuildingBlock (supporting hundreds of DVRs) could have been substituted for the StarterBlock. The installation and setup process is largely unchanged.

Intellex DVR Upgrade Considerations

There are many benefits to performing an Intransa CCTV DVR Upgrade to support existing AD Intellex systems. One of the benefits is that capacity can be increased whenever needed to accommodate a greater retention period in the future, without re-cabling or halting recording and playback.

Another benefit is that the Intellex system can take advantage of the IP network as the shared storage is available to any units within upgraded surveillance system. IP devices can also be immediately added to the surveillance system, while continuing to leverage the Intellex DVR and analog cameras and cabling.

Together, these benefits help to extend the life and increase the value of the existing surveillance system while providing an easy migration path to future all-IP solutions and deployments without the expense of an all-new system or the risk of deploying entirely new technology.

To get started, you will need to determine how you are going to manage your complete system, including the soon-to-be-added CCTV DVR upgrade.

Network Considerations

Most Intellex DVRs have one on-board 10/100/100 Base-T network adapter installed. To completely isolate the video retention (storage) traffic from other user and management traffic, it is recommended that a second Network Interface Card (NIC) be installed. This will isolate the video retention and playback traffic from regular video traffic, providing better performance and system security.

Most Intellex DVRs have 6 PCI-X slots and one PCI-E slot. As long as there is one free slot available, you can easily install a Gigabit NIC card (such as from Intel or other vendors) into this free slot. You will connect to the CCTV DVR Upgrade and its retention capacity through this network adapter. Depending upon your management requirements, you may do this with or without a standard 1GbE Ethernet network data switch; to get the maximum access and management benefits, Intransa recommends using such a switch.

To monitor the security system from computers connected to the corporate network, the Intellex 10/100 NIC is connected to the corporate network, and the Network Client application is installed on corporate network computers. The Network Client can monitor the dedicated IP video security network without exposing the corporate network to the entire video load, which is an administration, security and performance benefit.

From the video retention system point of view, you can either place the video data retention provided by the CCTV DVR Upgrade in a separate network or as part of your existing LAN infrastructure.

Intellex Upgrade Options

Intransa Smart CCTV DVR Upgrades are available to all American Dynamics Intellex systems ranging from the most powerful Ultra through to the DVMS/LT and IP platforms.

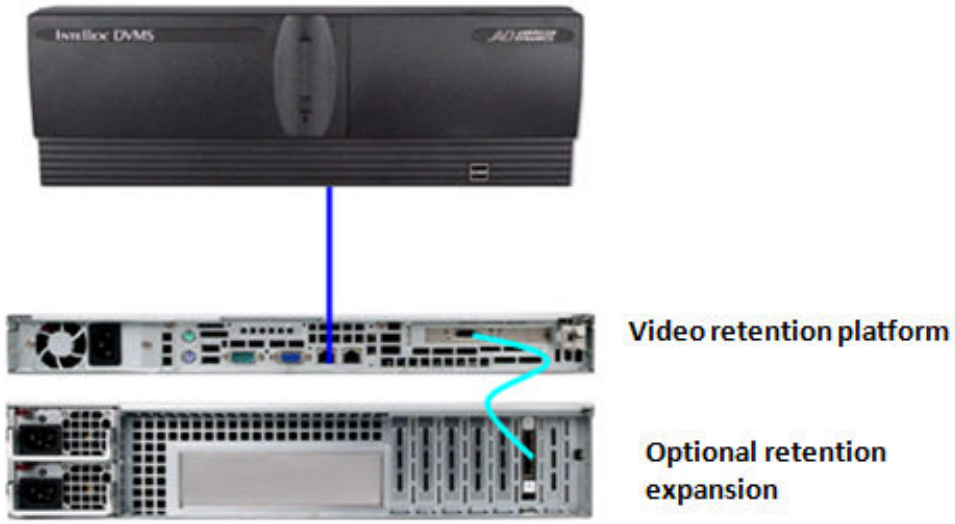
	Intellex Ultra (Premier)	Intellex DVMS (Standard, Deluxe & Premier)	Intellex LT	Intellex IP (Premier)
Maximum Images per Second *(NTSC/PAL)*	480/400	120/100	60/50	480/400
Storage Capacity	500 GB, 1.0 TB, 1.5 TB, 2.0 TB (RAID 5 1.5 TB)	160 GB, 250 GB, 320 GB, 500 GB, 750 GB[3]	250 GB, 500 GB	500 GB, 1.0 TB
Windows® XP Pro	Yes	Yes	Yes	Yes
Network	2x gigabit	1x 100Base-T	1x 100Base-T	2x gigabit

Upgrading the Intellex system is a very simple process. You will need to decide how you are going to manage your CCTV DVR Upgrade and its video data retention capacity before we get started.

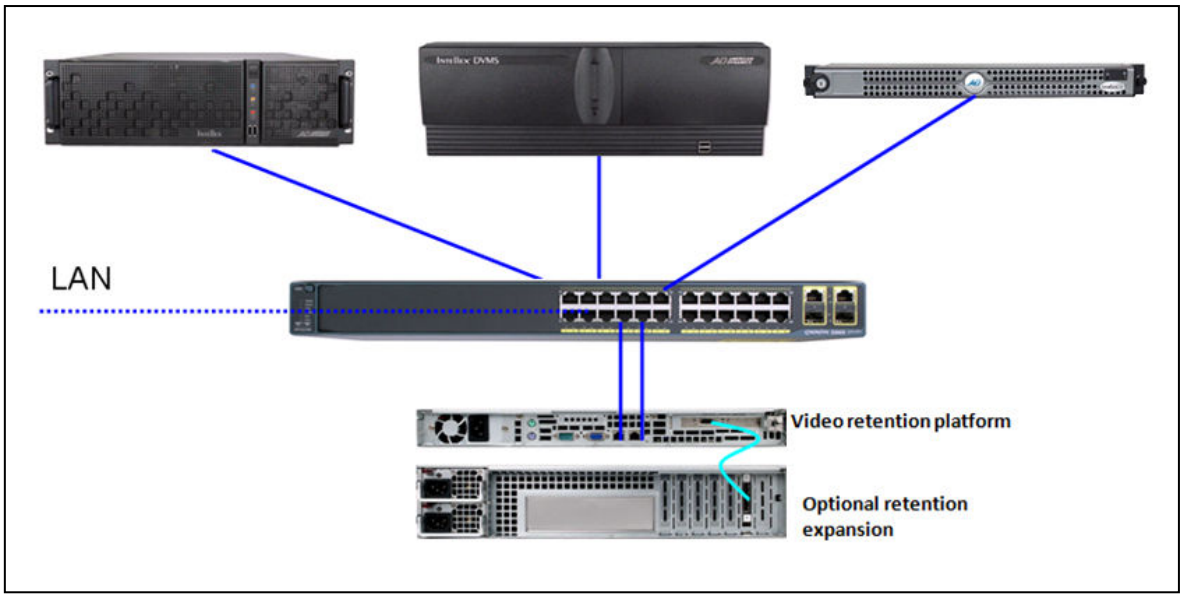
There are two options.

- Mange video data retention capacity from the Intellex DVR
- Manage video data retention capacity from anywhere on the attached IP Network

Managing video data retention capacity on the CCTV DVR Upgrade from the Intellex DVR pictorially appears as follows, with a single DVR directly connected to the Intransa StarterBlock used as the retention and playback platform.



Managing the video data retention capacity on the CCTV DVR Upgrade from anywhere on the attached IP network appears as follows, with a network data switch providing access to multiple platforms including the Intellex DVR.



There are many network administration and management advantages of connecting in this manner, including connectivity to multiple Intellex DVRs and other devices.

Intellex Upgrade Procedure Summary

Prior to upgrading, you will need to prepare:

- (1) Gigabit Network Interface Card (such as a Intel Pro/1000) that fits properly into your DVR's PCI slot, if required for your plans;
- Network Driver for the above NIC card;
- A download of the free, standard Microsoft iSCSI initiator from the Microsoft web site;
- (1) IP address per storage system, (1) IP address per NIC on the DVR.

The following steps will be required to complete the Intellex upgrade process:

1. *Depending on the bandwidth requirement of the system, you may need to install one Network Interface Adapter on each of your Intellex DVRs.*
2. *Install the Microsoft iSCSI initiator and identify the initiator's assigned name per DVR.*
3. *Configure the Intransa StarterBlock, and assign video retention capacity to the Intellex DVRs.*
4. *Configure the Microsoft iSCSI initiator on each DVR to connect to the Intransa StarterBlock system for access to the shared retention capacity.*

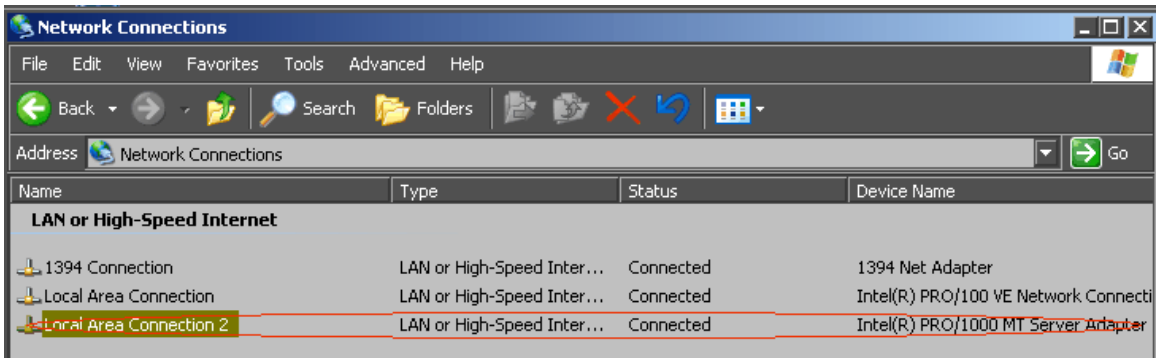
5 *Format the CCTV DVR upgrade retention capacity disks in the StarterBlock system to an NTFS file system. NTFS is the acronym for the Microsoft New Technology File System, which succeeded the original Microsoft FAT file system for use in Windows-branded operating systems (this step is optional).*
6 *Configure the Intellex to record video onto the Intransa CCTV DVR Upgrade retention system.*

We will now proceed through each of these steps.

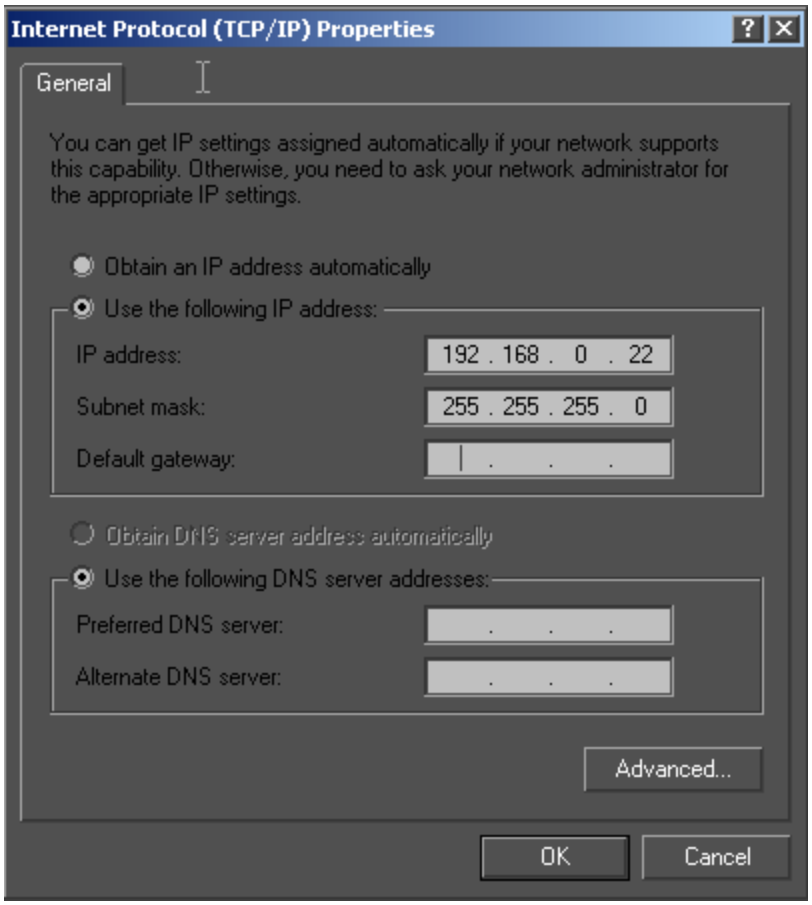
Step 1: Install/Configure the NIC on the Intellex DVR

Open the top cover of the Intellex, identify the free PCI slot for the storage adapter and then install the gigabit NIC into the correct PCI slot.

Reboot the Intellex DVR after the storage adapter has been installed, and install network driver. Once system reboots, you should see the network adapter under “Control Panel”->”Network Connections”.


Network Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders
Address Network Connections
Go
Name Type Status Device Name
LAN or High-Speed Internet
1394 Connection LAN or High-Speed Inter... Connected 1394 Net Adapter
Local Area Connection LAN or High-Speed Inter... Connected Intel(R) PRO/100 VE Network Connecti
Local Area Connection 2 LAN or High-Speed Inter... Connected Intel(R) PRO/1000 MT Server Adapter

Double click the “Local Area Connection 2”, select “Properties”, double click “Internet Protocol (TCP/IP)” and then enter the IP addresses for the NIC.

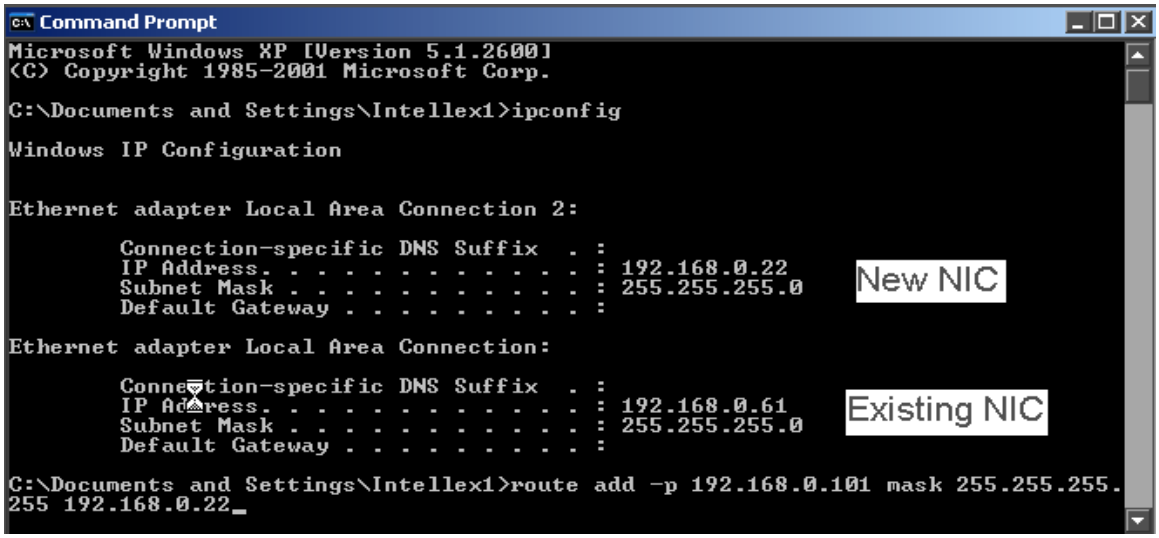

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 0 . 22
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

If you want to manage the available video retention directly from the DVR, you will connect directly from the Intellex DVR to the CCTV DVR Upgrade through the newly installed network adapter. You can use any individual, unused IP address that is appropriate for your organization.

If you want to manage the video retention from your LAN system, including the DVR itself, you will need to assign the NIC an IP address that is within your LAN.

In this situation, you will need to configure a special route to the retention capacity on the CCTV DVR Upgrade.

Assuming the CCTV DVR Upgrade has an IP address of 192.168.0.101/255.255.255.0, you will need to run a command on your DVR to route video retention traffic with the target as 192.168.0.101 using the address 192.168.0.100 for the NIC interface.

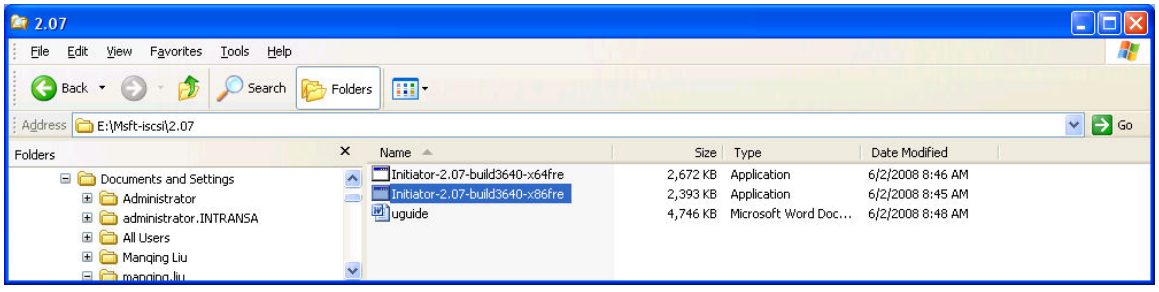

Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Intellex1>ipconfig
Windows IP Configuration
Ethernet adapter Local Area Connection 2:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.0.22
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
New NIC
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.0.61
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
Existing NIC
C:\Documents and Settings\Intellex1>route add -p 192.168.0.101 mask 255.255.255.
255 192.168.0.22_

Connect the Intellex DVR to the video retention system according to your organization's management requirements. Connecting over an IP network provides the most flexibility, management and access options.

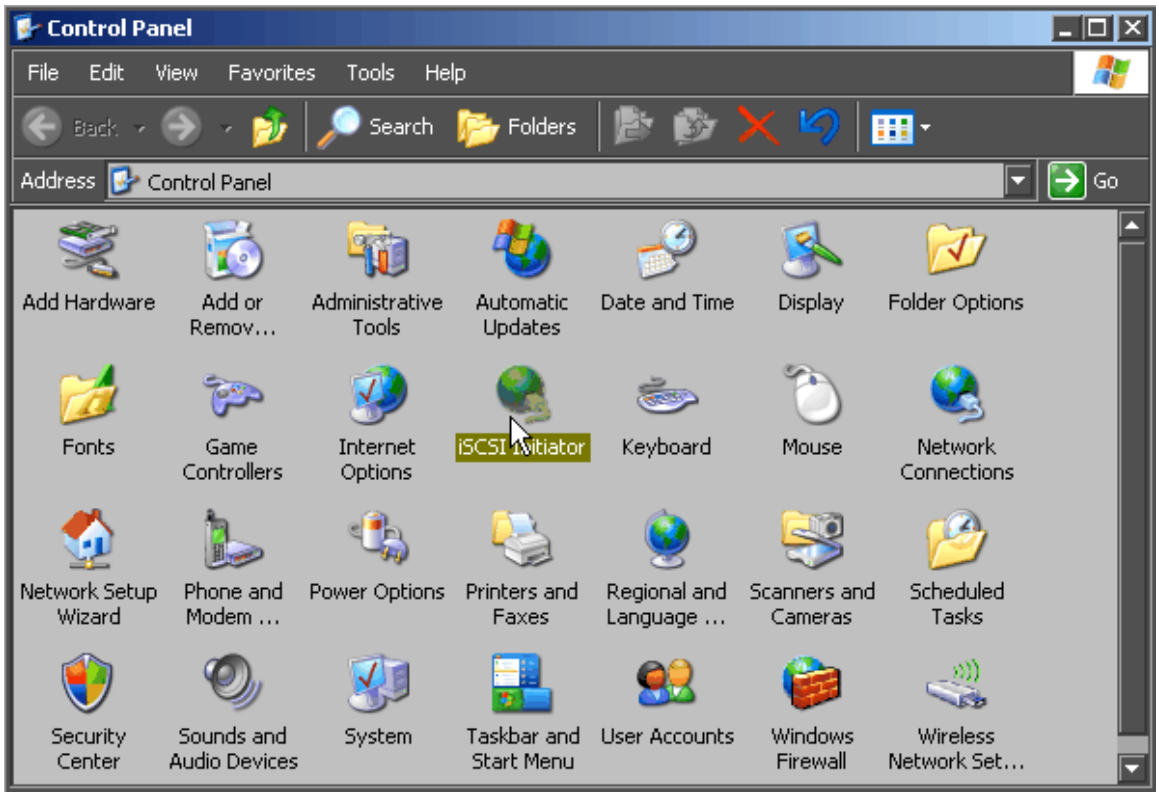
Step 2: Install and Configure the Microsoft iSCSI initiator

In order to communicate to the video retention capacity provided by the CCTV DVR upgrade from your DVR, you will need to install a standard, free Microsoft iSCSI initiator to each Intellex DVR. If the DVR is not connected to the Internet, you can use any web-accessible PC to access the Microsoft site, download the driver to a USB memory drive, and then load the driver from the memory drive onto the Intellex using its SB port.

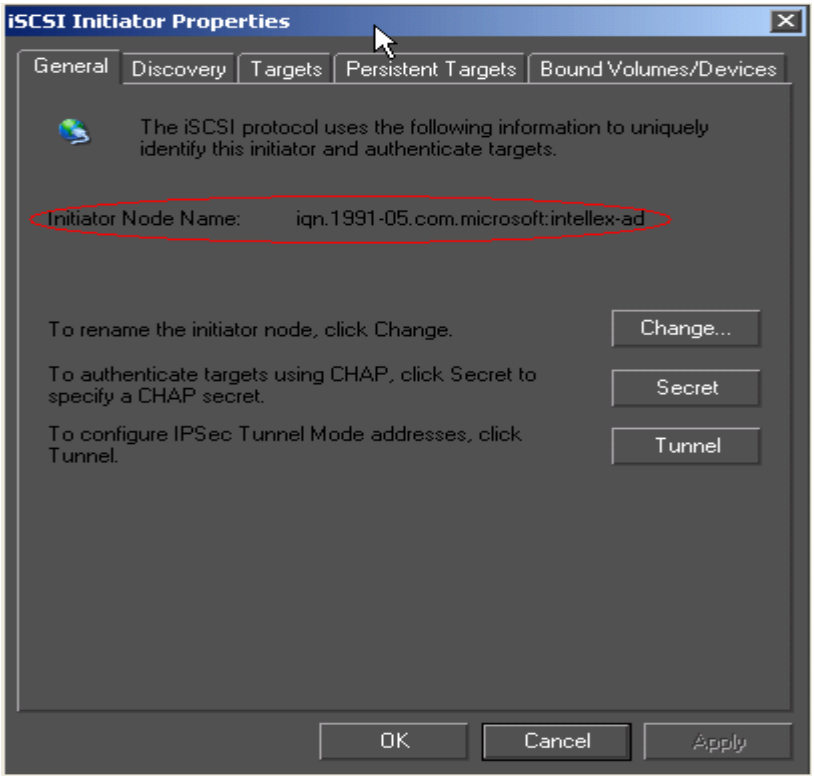
Locate the Microsoft iSCSI initiator, and click "Initiator-XXX". Follow the on-screen instructions to install it on your DVR.



Once installed, you will see "iSCSI initiator" appear in the "Control Panel".



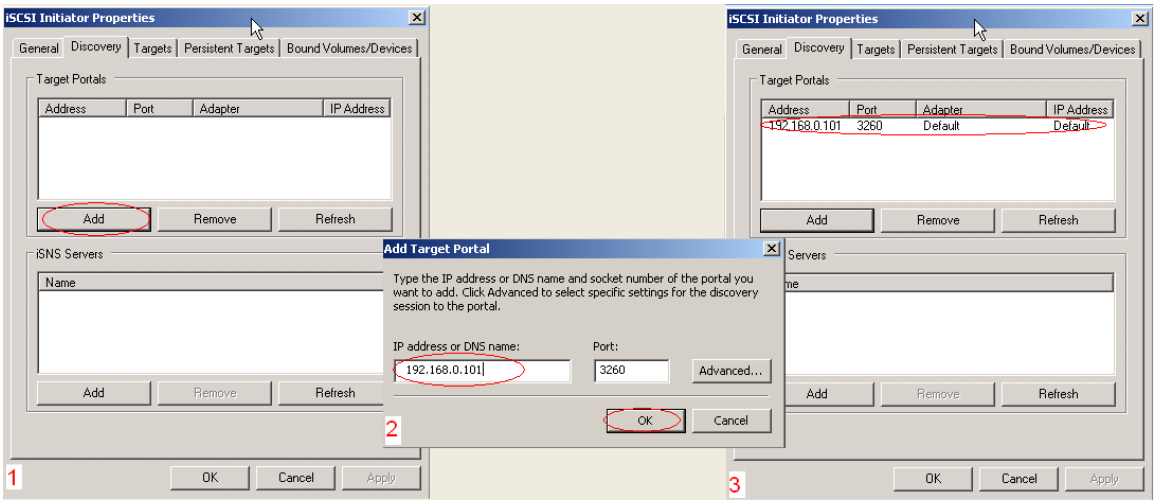
Double click “iSCSI Initiator”.



You can change the “Initiator Node Name” to whatever best reflects your DVR location or name. However, two DVRs cannot share the same “Initiator Node Name”; each must be a unique name for network access purposes.

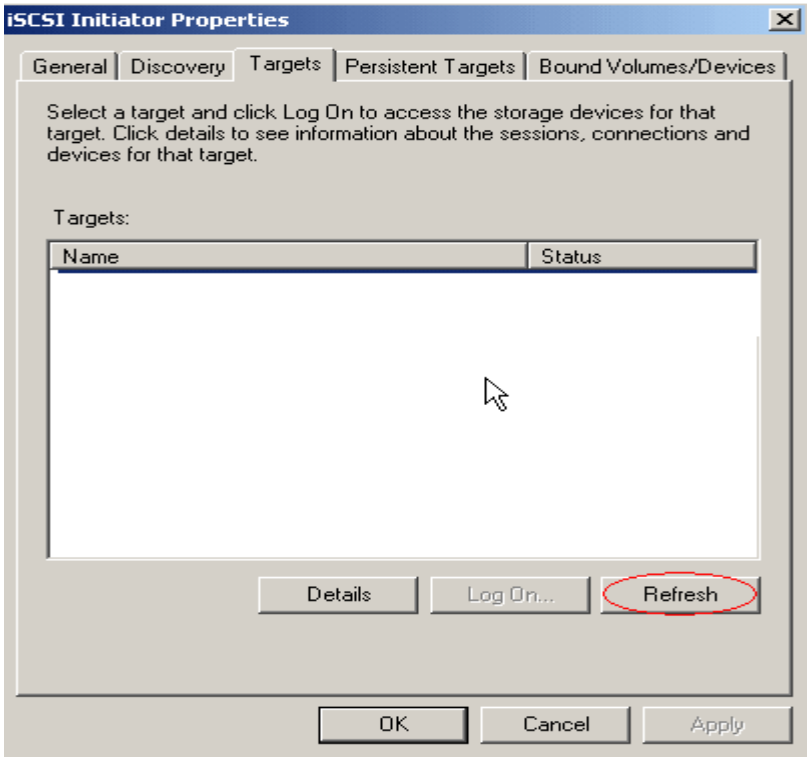
We will use the name “iqn.1991-05.com.microsoft:intellex-ad” in this example. Be sure to record this name as you will need it later to assign the video retention capacity supplied by the CCTV DVR Upgrade.

Next, configure the DVR to discover the video retention capacity provided by the CCTV DVR Upgrade by clicking the “Discovery” tab.



Once the discovery process is complete, the IP address is configured. The DVR can now see the video data retention capacity supplied by the CCTV DVR Upgrade.

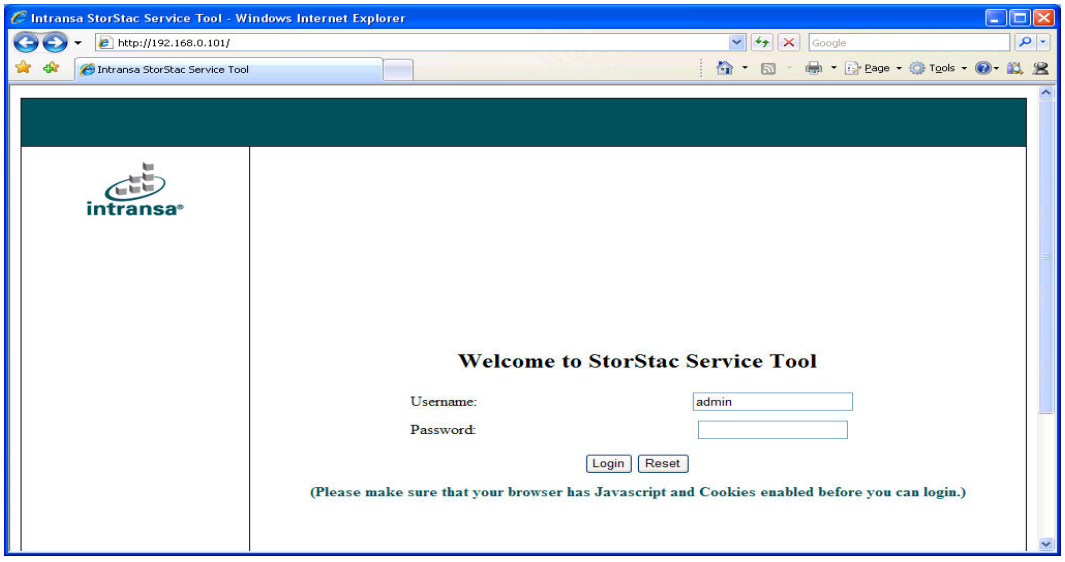
Move to the “Target” tab, click “Refresh”, and you will see a list of storage volumes which have been assigned to this DVR. The list is empty at this point since we have not yet configured that part of the CCTV DVR Upgrade.



Step 3: Configure the Intransa StarterBlock

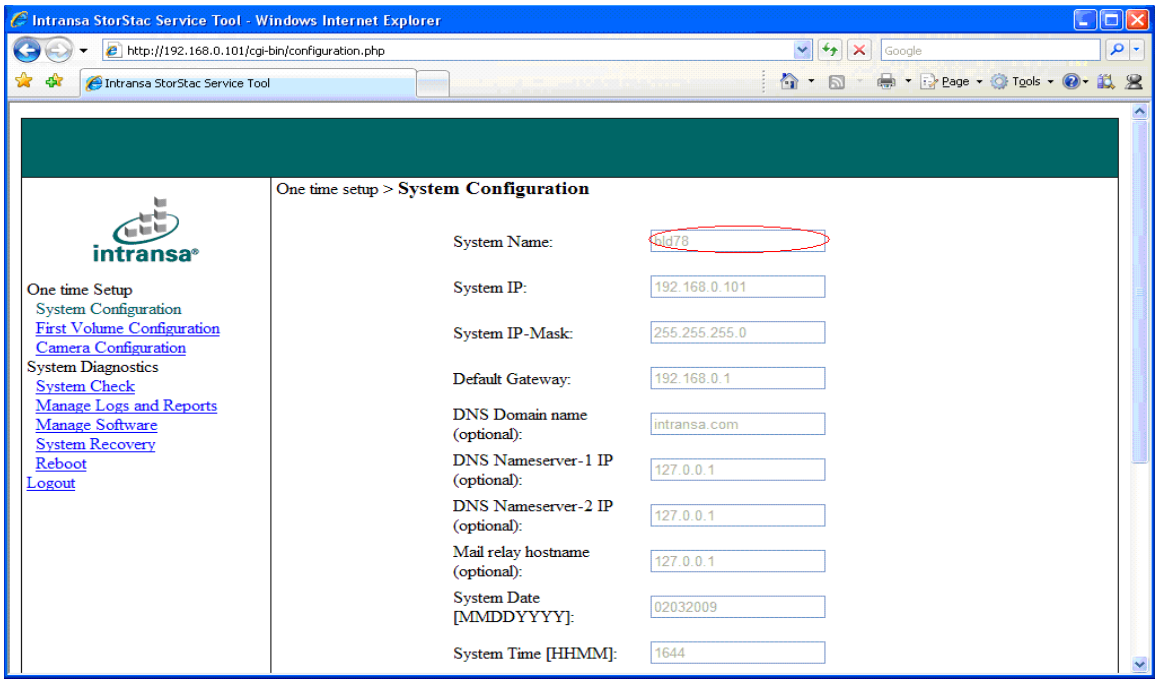
In this section, you will configure Intransa CCTV DVR Upgrade from the AD Intellex DVR.

To get started on this step, from the Intellex DVR launch the standard Microsoft Internet Explorer web browser. Point to the StarterBlock used as the CCTV DVR upgrade system [http://192.168.0.101], and you will see the Intransa StorStac Service Tool screen.



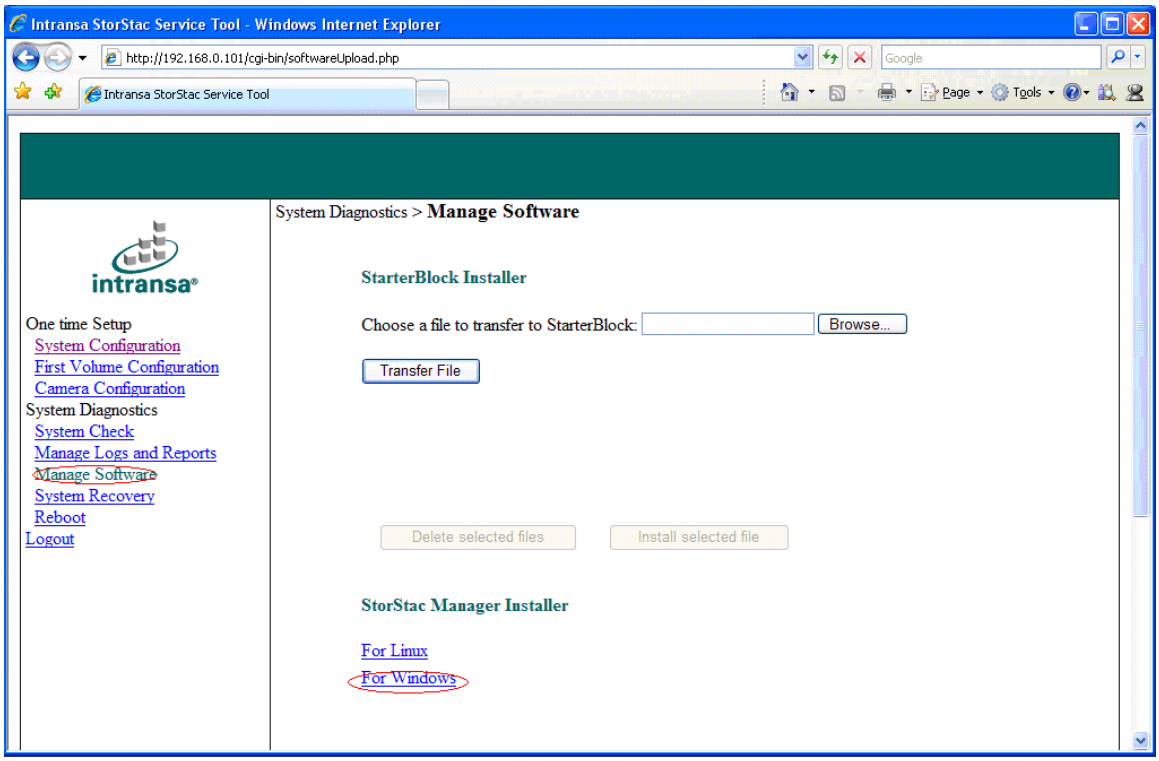
Login as “admin” with the password “intransa”.

Once logged in, move to system configuration. You need to provide a system name for the StarterBlock system, and provide a new password.



Click the “Configure” button at the bottom of the screen.

The system will be ready in 3-4 minutes. You will then log back in and go to the “Manage Software” section.



Click "StorStac Manager Installer for Windows" and install the Intransa StorStac Manager on the Intellex DVR.

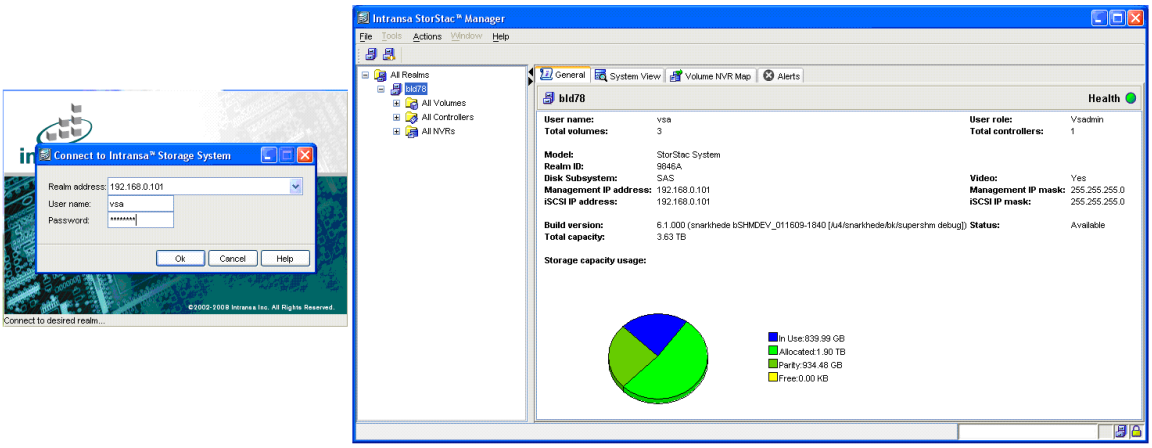
The Intransa StorStac Manager software supports multiple roles for system management. These are the *administrator* role (to login as Admin), *video storage administrator* (to login as VSA) or *guest* (to login as a user).

We will use VSA role most of the time for the CCTV DVR Upgrade since it is specifically designed for use by security practitioners.

Configure the Intransa StarterBlock via the VSA role

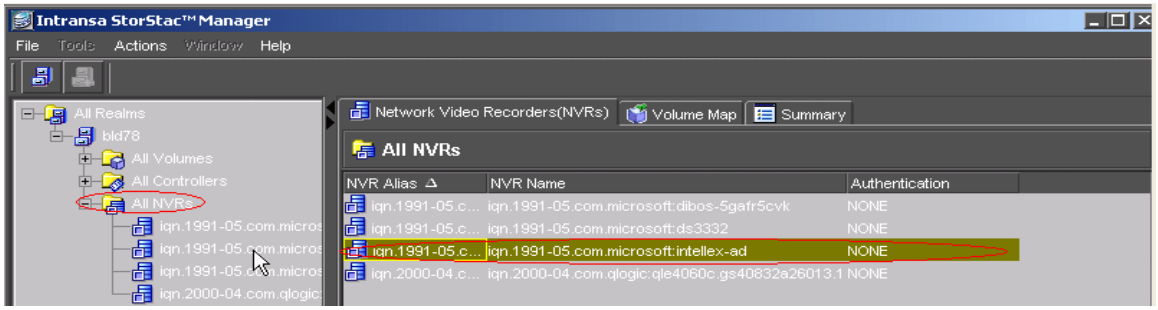
We will create an initiator host entry (a specific device name) to represent the Intellex DVR first, and then create individual file volumes on the CCTV DVR Upgrade, and then finally we will assign the volumes to the DVR.

From the AD Intellex DVR, login to the StarterBlock-based CCTV DVR Upgrade by clicking on the Intransa StorStac icon, or Start>Programs->Intransa->StorStac. Enter the user name "vsa".

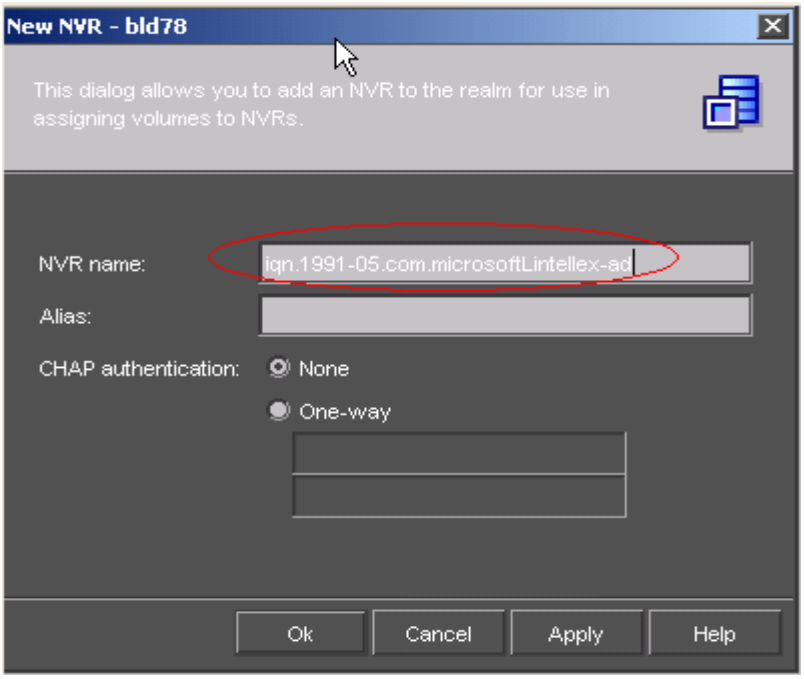


Create the DVR/NVR Host Entry

Note that the host entry name may have already been created for you. You can verify this under “All NVRs”.



If it has not been already created, you can easily create one by right clicking “All NVRs”.



Apply to complete the initiator addition.

If you have multiple DVRs accessing the video retention supplied by the CCTV DVR Upgrade, you will need to create a host entry for each of them. This keeps each DVR defined and separate while sharing the retention capacity for recording and playback.

Create Volumes and Assign Them to the DVR

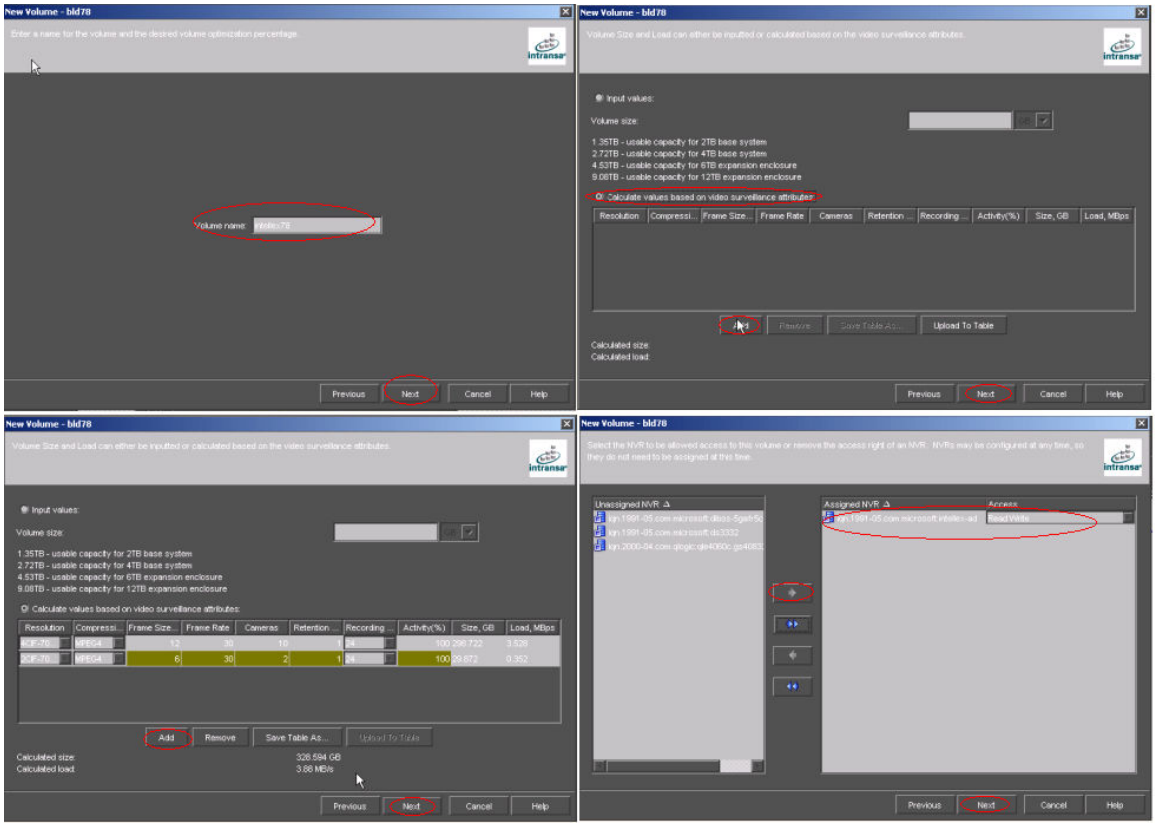
To create video retention volumes, right click "All Volumes" and select "New Volume" as shown in step 1-4.

Provide the name of the volume, add the list of cameras properties you desire, and then highlight the name of the initiator (or DVR) for which you want the volume to be accessible.

In the example, we used "iqn.1991-05.com.microsoft:intellex-ad".

Enter the initiator name you created earlier, and then click the arrow assignment key.

Select "Finish".



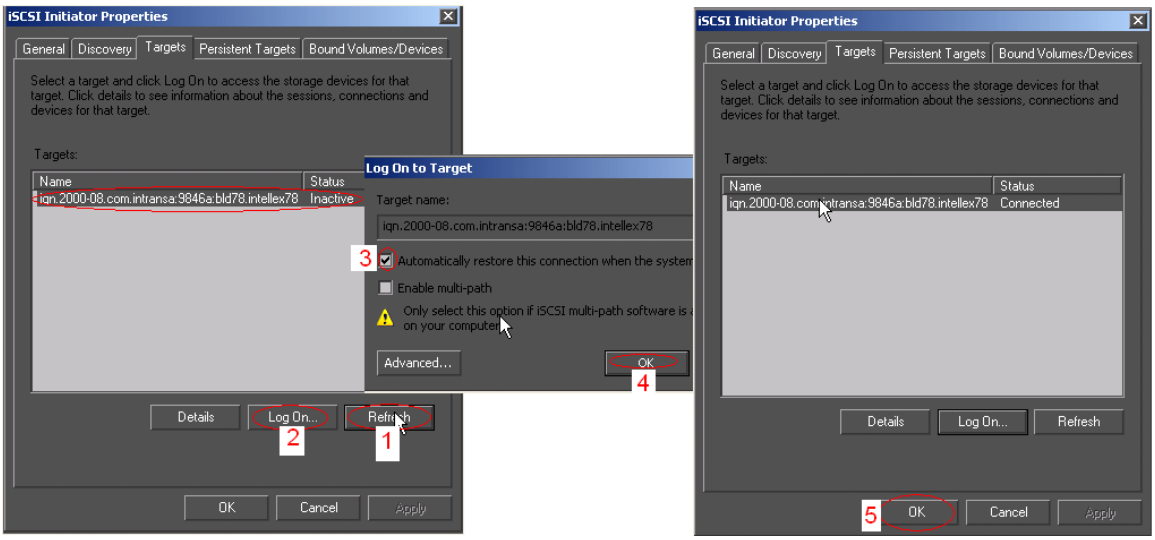
Continue to create as many volumes as required/supported, and assign to the proper DVRs that will access the Intransa Smart CCTV DVR Upgrade.

Step 4: Make the CCTV DVR Upgrade Capacity Available to the AD Intellex DVR

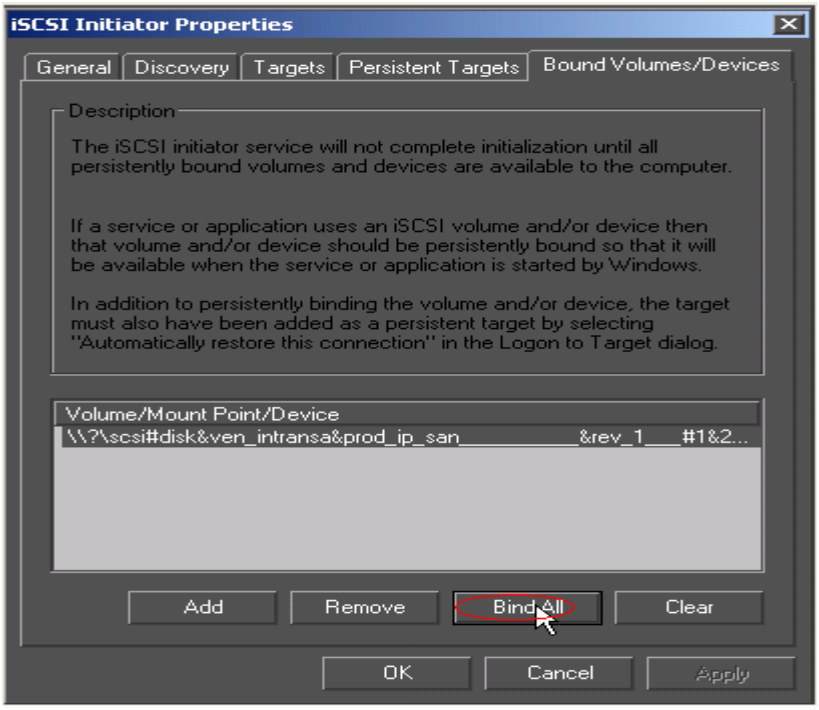
On the Intellex DVR, open the Microsoft iSCSI initiator from the “Control Panel”, and move to “Target” tag.

Click “Refresh” and you will see the list of video retention volumes (drives) which have been provisioned to this DVR.

Login to the CCTV DVR Upgrade system provided by the Intransa StarterBlock by clicking “Log On” and check “Restore this Connection.”

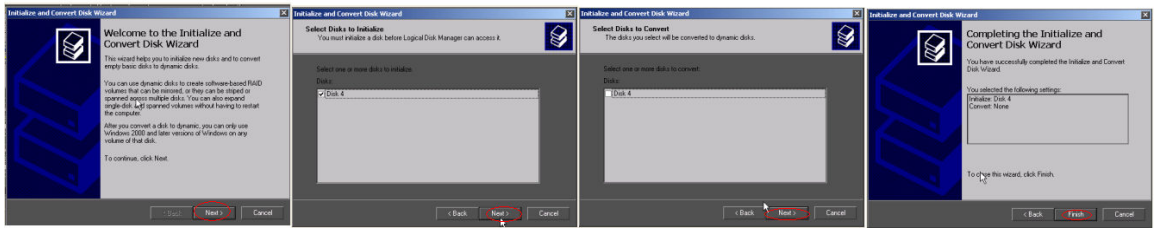


Finally bind the volume (drive) to be used by moving to the "Bound Volumes/Devices" tab and clicking "Bind All".

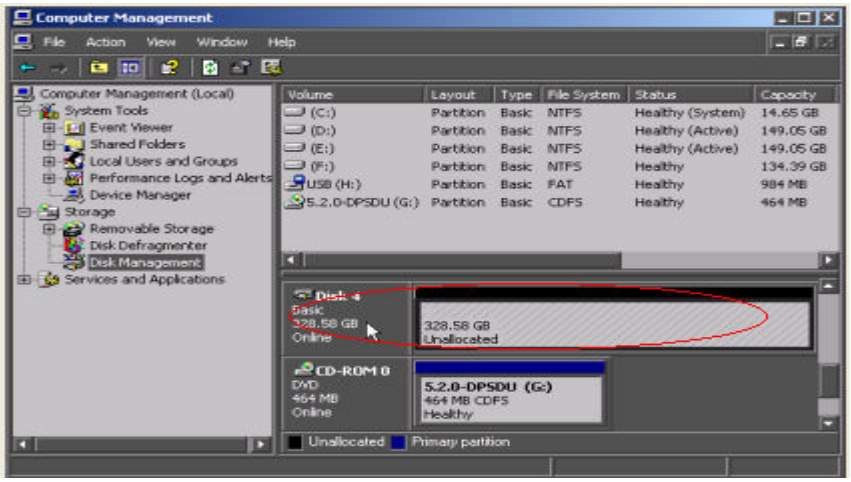

iSCSI Initiator Properties
General
Discovery
Targets
Persistent Targets
Bound Volumes/Devices
Description
The iSCSI initiator service will not complete initialization until all persistently bound volumes and devices are available to the computer.
If a service or application uses an iSCSI volume and/or device then that volume and/or device should be persistently bound so that it will be available when the service or application is started by Windows.
In addition to persistently binding the volume and/or device, the target must also have been added as a persistent target by selecting "Automatically restore this connection" in the Logon to Target dialog.
Volume/Mount Point/Device
\\?\scsi#disk&ven_intransa&prod_ip_san_____&rev_1___#1&2...
Add
Remove
Bind All
Clear
OK
Cancel
Apply

Step 5: Format to NTFS

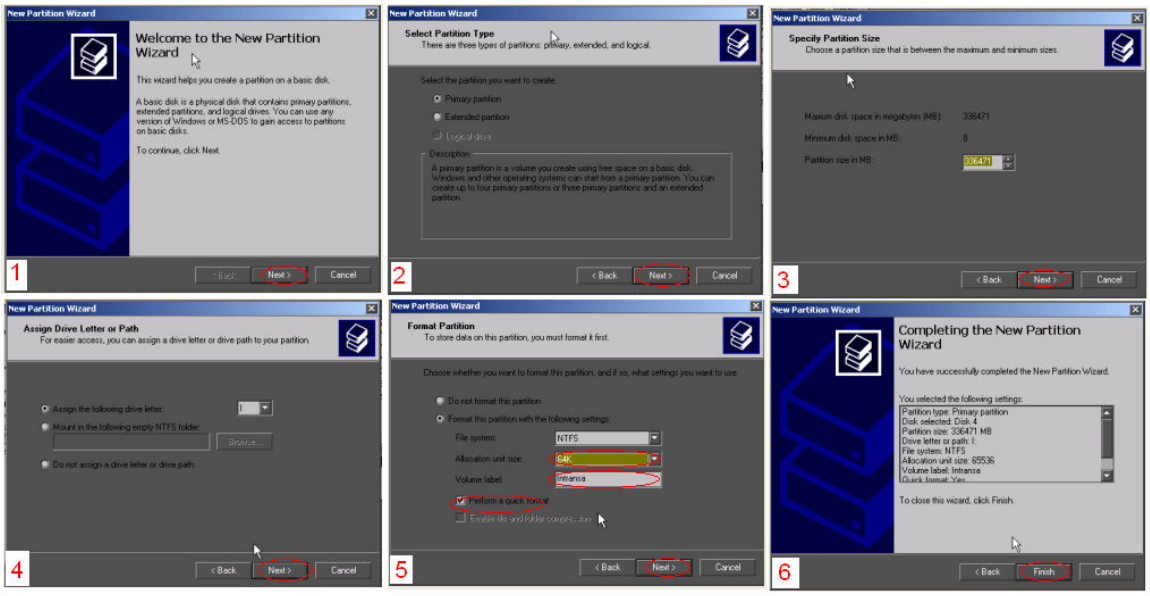
Start the Microsoft Management Console by right clicking “My Computer” (located through Control Panel -> My computer), and select Manage. Click “Disk Management”.


Initialize and Convert Disk Wizard
Welcome to the Initialize and Convert Disk Wizard
Select Disks to Initialize
Select Disks to Convert
Completing the Initialize and Convert Disk Wizard

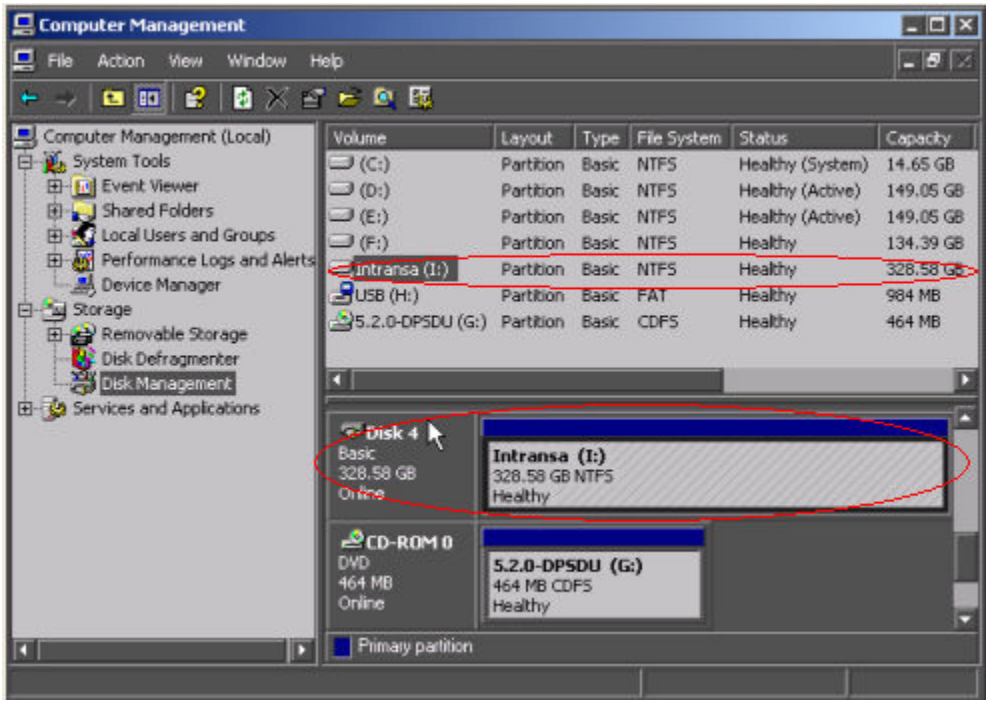
You will then see a list of new drives available through the CCTV DVR Upgrade.



Assign a drive letter, and format it to the NTFS file system by right clicking on the drive.



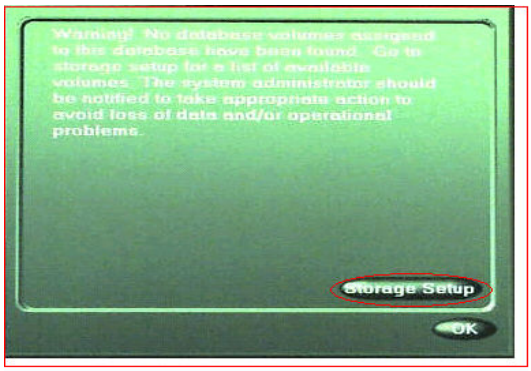
Once the selected drive is formatted, you will be able to record video to the drive, in this case shown as drive letter “I”.



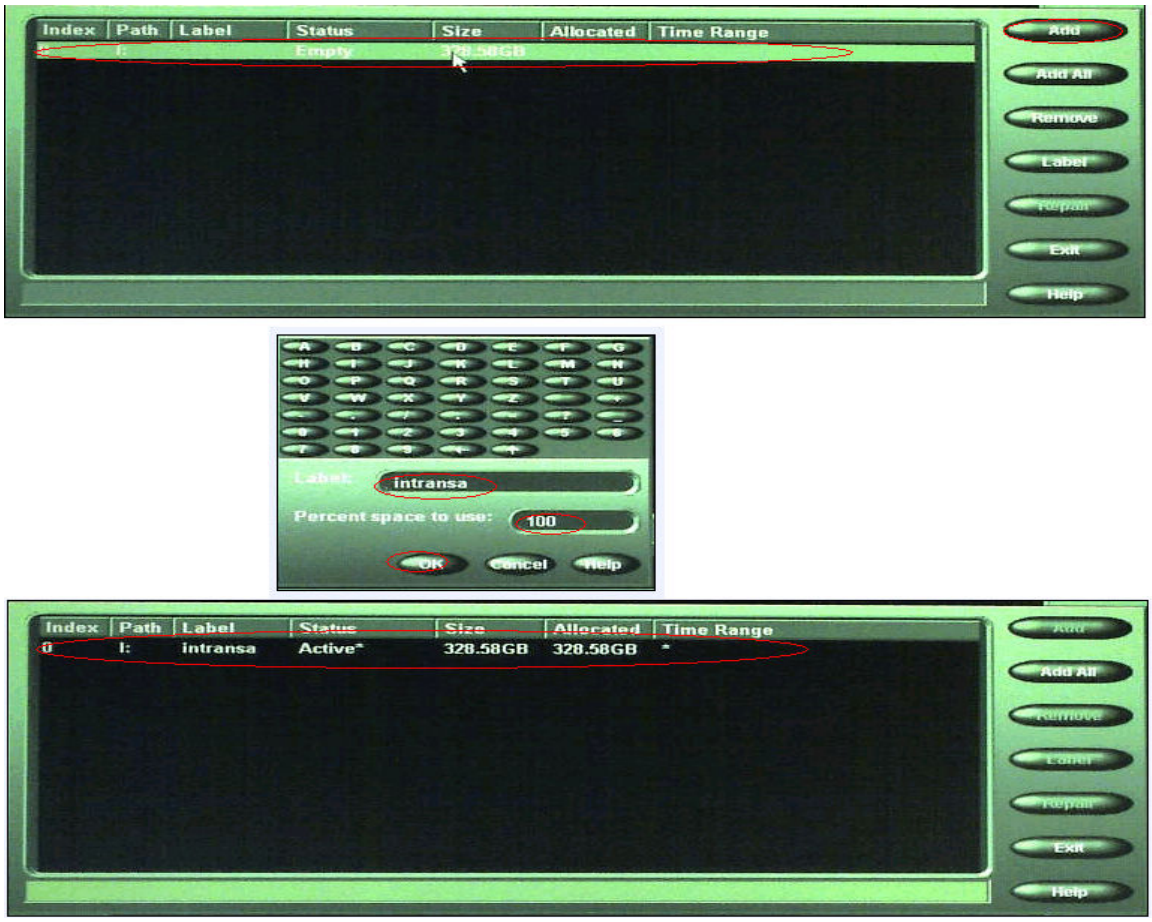
Step 6: Recording Video to the CCTV DVR Upgrade

Start the Intellex application on the DVR. You will see “Storage Setup” if none of the video retention capacity has been configured yet, or if you want add additional video retention to an existing Smart CCTV DVR Upgrade connected to your DVRs.

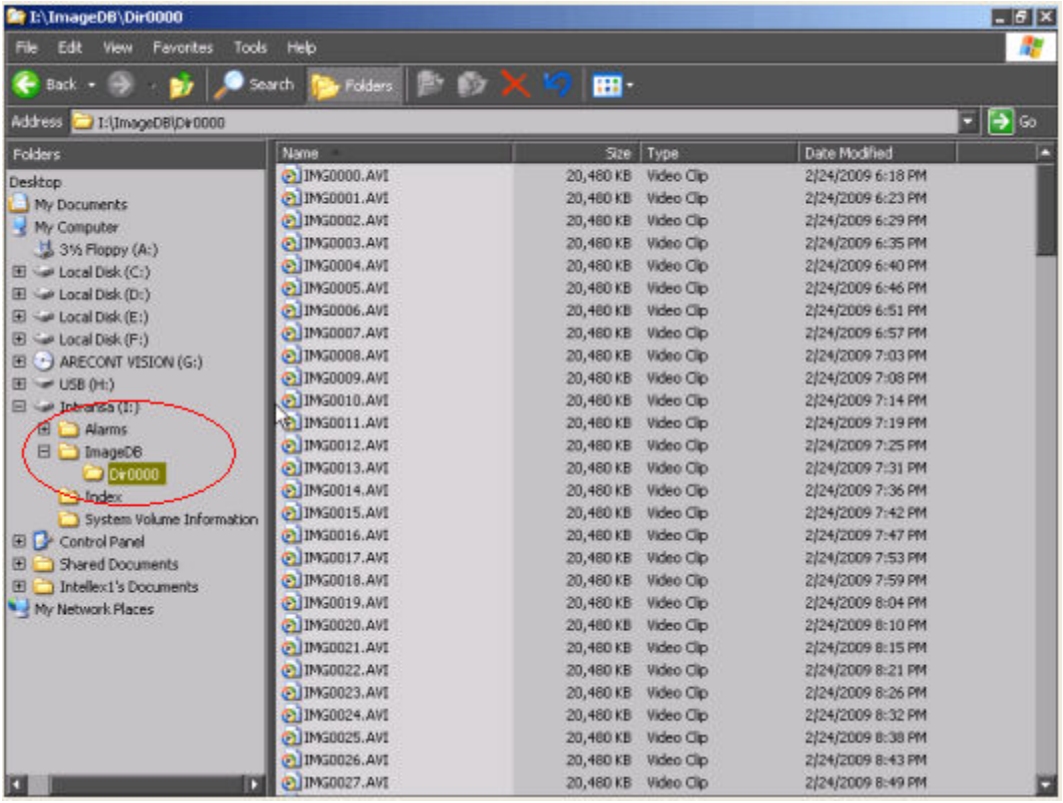
Click “Setup” and then “Storage” to proceed.



Activate the video retention capacity for recording and playback on the CCTV DVR Upgrade and make it accessible from the Intellex DVR.



If you have cameras configured on the Intellex DVR, you will see video recorded under that folder.


I:\ImageDB\Dir0000
File Edit View Favorites Tools Help
Back Search Folders
Address I:\ImageDB\Dir0000
Go
Folders
Desktop
My Documents
My Computer
3½ Floppy (A:)
Local Disk (C:)
Local Disk (D:)
Local Disk (E:)
Local Disk (F:)
ARECONT VISION (G:)
USB (H:)
Intransa (I:)
Alarms
ImageDB
Dir0000
Index
System Volume Information
Control Panel
Shared Documents
Intellex1's Documents
My Network Places
Name Size Type Date Modified
IMG0000.AVI 20,480 KB Video Clip 2/24/2009 6:18 PM
IMG0001.AVI 20,480 KB Video Clip 2/24/2009 6:23 PM
IMG0002.AVI 20,480 KB Video Clip 2/24/2009 6:29 PM
IMG0003.AVI 20,480 KB Video Clip 2/24/2009 6:35 PM
IMG0004.AVI 20,480 KB Video Clip 2/24/2009 6:40 PM
IMG0005.AVI 20,480 KB Video Clip 2/24/2009 6:46 PM
IMG0006.AVI 20,480 KB Video Clip 2/24/2009 6:51 PM
IMG0007.AVI 20,480 KB Video Clip 2/24/2009 6:57 PM
IMG0008.AVI 20,480 KB Video Clip 2/24/2009 7:03 PM
IMG0009.AVI 20,480 KB Video Clip 2/24/2009 7:08 PM
IMG0010.AVI 20,480 KB Video Clip 2/24/2009 7:14 PM
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IMG0024.AVI 20,480 KB Video Clip 2/24/2009 8:32 PM
IMG0025.AVI 20,480 KB Video Clip 2/24/2009 8:38 PM
IMG0026.AVI 20,480 KB Video Clip 2/24/2009 8:43 PM
IMG0027.AVI 20,480 KB Video Clip 2/24/2009 8:49 PM

Step 7: Protect your System

To protect your system from unexpected problems such as a DVR issue due to the motherboard, processor, memory or power supply failing, you should follow the following additional procedure.

Backup the configuration of each Intellex DVR to the Smart CCTV DVR Upgrade provided by the Intransa StarterBlock. Doing so ensures that if you ever have a DVR failure, you can recover your DVR configuration and eliminate the risk of any lost video. By doing the configuration backup, you can recreate the DVR environment for a new or replacement DVR, and easily restore the video previously recorded on the StarterBlock system.

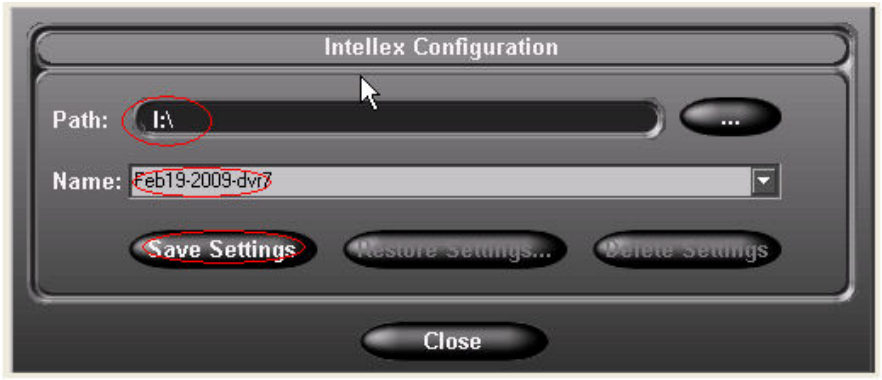
To backup your configuration, for each DVR do the following.

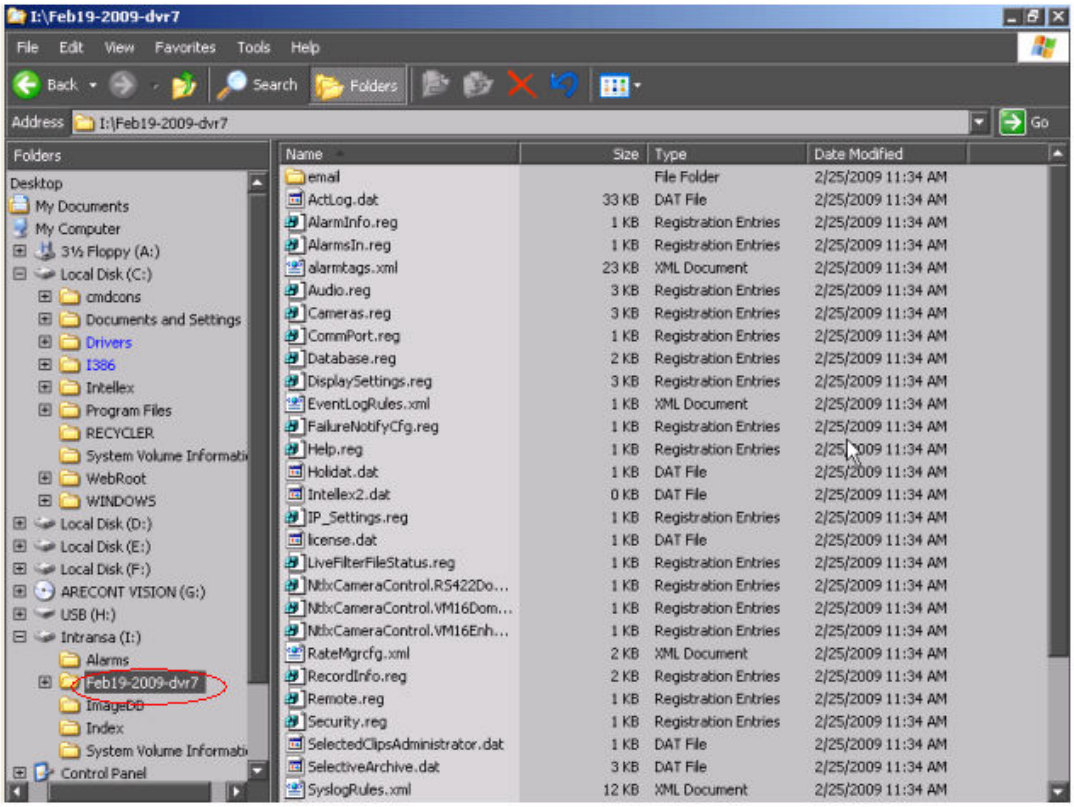
Start the "Intellex Configuration" function on the DVR. Select the Intransa StarterBlock system used as the CCTV DVR Upgrade as the path to record the configuration data to.

Next, save the configuration to a directory on the StarterBlock.

Be sure to always re-perform this task whenever you have changed the DVR configuration. This will ensure proper, easy recovery of your DVR system and eliminate the risk of lost video.

Intellex
Configuration


Intellex Configuration
Path:
I:\
...
Name:
Feb19-2009-dvr7
Save Settings
Restore Settings...
Delete Settings
Close


I:\Feb19-2009-dvr7
File Edit View Favorites Tools Help
Back Search Folders
Address I:\Feb19-2009-dvr7
Go
Folders
Desktop
My Documents
My Computer
3½ Floppy (A:)
Local Disk (C:)
cmdcons
Documents and Settings
Drivers
I386
Intellex
Program Files
RECYCLER
System Volume Informati
WebRoot
WINDOWS
Local Disk (D:)
Local Disk (E:)
Local Disk (F:)
ARECONT VISION (G:)
USB (H:)
Intransa (I:)
Alarms
Feb19-2009-dvr7
ImageDB
Index
System Volume Informati
Control Panel
Name Size Type Date Modified
email File Folder 2/25/2009 11:34 AM
ActLog.dat 33 KB DAT File 2/25/2009 11:34 AM
AlarmInfo.reg 1 KB Registration Entries 2/25/2009 11:34 AM
AlarmsIn.reg 1 KB Registration Entries 2/25/2009 11:34 AM
alarmtags.xml 23 KB XML Document 2/25/2009 11:34 AM
Audio.reg 3 KB Registration Entries 2/25/2009 11:34 AM
Cameras.reg 3 KB Registration Entries 2/25/2009 11:34 AM
CommPort.reg 1 KB Registration Entries 2/25/2009 11:34 AM
Database.reg 2 KB Registration Entries 2/25/2009 11:34 AM
DisplaySettings.reg 3 KB Registration Entries 2/25/2009 11:34 AM
EventLogRules.xml 1 KB XML Document 2/25/2009 11:34 AM
FailureNotifyCfg.reg 1 KB Registration Entries 2/25/2009 11:34 AM
Help.reg 1 KB Registration Entries 2/25/2009 11:34 AM
Holidat.dat 1 KB DAT File 2/25/2009 11:34 AM
Intellex2.dat 0 KB DAT File 2/25/2009 11:34 AM
IP_Settings.reg 1 KB Registration Entries 2/25/2009 11:34 AM
license.dat 1 KB DAT File 2/25/2009 11:34 AM
LiveFilterFileStatus.reg 1 KB Registration Entries 2/25/2009 11:34 AM
NtlxCameraControl.RS422Do... 1 KB Registration Entries 2/25/2009 11:34 AM
NtlxCameraControl.VM16Dom... 1 KB Registration Entries 2/25/2009 11:34 AM
NtlxCameraControl.VM16Enh... 1 KB Registration Entries 2/25/2009 11:34 AM
RateMgrcfg.xml 2 KB XML Document 2/25/2009 11:34 AM
RecordInfo.reg 2 KB Registration Entries 2/25/2009 11:34 AM
Remote.reg 1 KB Registration Entries 2/25/2009 11:34 AM
Security.reg 1 KB Registration Entries 2/25/2009 11:34 AM
SelectedClipsAdministrator.dat 1 KB DAT File 2/25/2009 11:34 AM
SelectiveArchive.dat 3 KB DAT File 2/25/2009 11:34 AM
SyslogRules.xml 12 KB XML Document 2/25/2009 11:34 AM

Summary and Conclusions

In this paper, we have documented the detailed procedures to upgrade an AD Intellex series DVR with a Smart CCTV DVR Upgrade from Intransa, using an Intransa StarterBlock system.

Typically costing less than the price of a new DVR, CCTV DVR upgrades from Intransa will increase the video retention available to one or more DVRs in analog surveillance systems. This increased retention capacity allows DVRs and analog cameras to operate at maximum performance, supporting the highest frame rate and resolution the devices are capable of without concern over running out of retention capacity.

The security operator will also receive advanced alerts in the event of any system or performance issues, allowing a more proactive approach. In the event of disk drive or component failure, the security operator can replace that individual component or drive without need for a service call, and typically without any system downtime.

As additional capacity is required, it can be added to the system without re-cabling or halting recording and playback. The upgrade also enables support of IP devices, including IP cameras and other leading-edge products from American Dynamics and other vendors, effectively future-proofing the surveillance system with a hybrid analog/digital solution. This provides an easy migration path to IP when desired.

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For More Information

Intransa Corporate Headquarters

2870 Zanker Road, M/S 200, San Jose, CA 95134-2114 USA
866 446 7726 or 408 678 8600 / www.intransa.com / sales@intransa.com

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